Montana DNRC Forestry Division

SERVICE FORESTRY

Forest Pest Management

Forest Practices

Forest Stewardship

Montana Conservation Seedling Nursery

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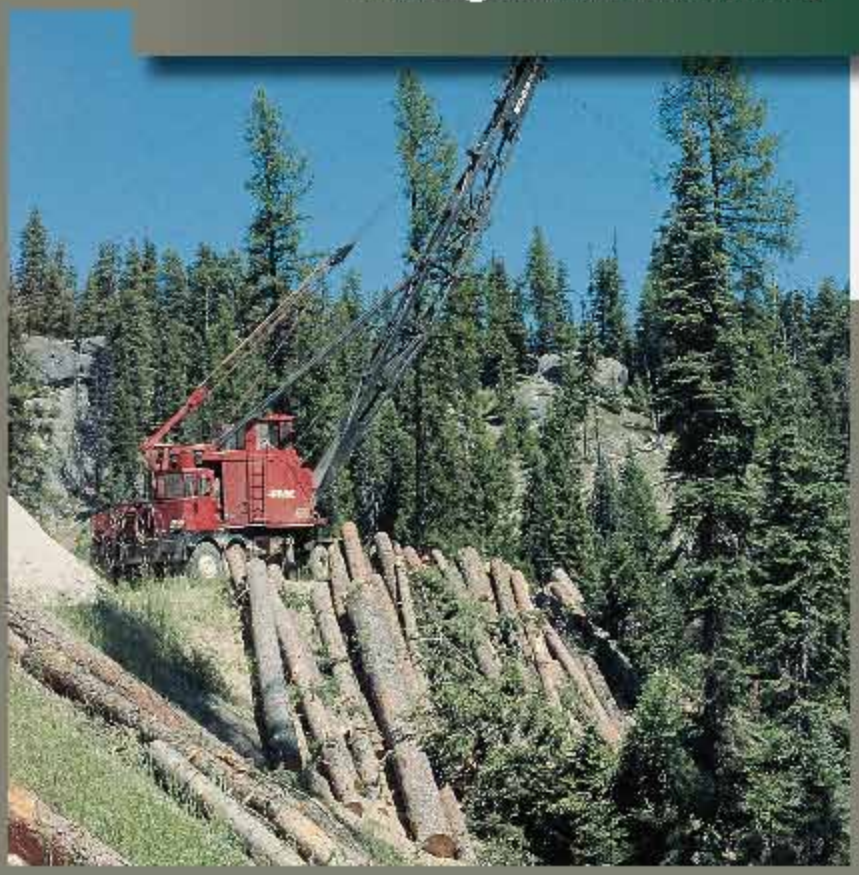
Forest Practices

Protecting Montana's Natural Resources Through Regulation and Forestry Best Management Practices



FOREST PRACTICES

Montana Department of Natural Resources and Conservation
Forestry Division
Service Forestry Bureau
Forest Practices

The Forest Practices Program is responsible for implementing the Fire Hazard Reduction ("Slash") Law, the Streamside Management Zone (SMZ) Law, and the Best Management Practices (BMP) Notification Law. These laws specify measures designed to protect soil and water resources during timber harvesting operations and to abate fire hazards caused by slash and debris from logging.

The Slash Law requires any party planning a timber harvest or certain timber stand improvement activities on private lands to enter into a Hazard Reduction Agreement (HRA) with DNRC Forestry. The application for a HRA requests information on site conditions and operator experience, and is reviewed by DNRC to determine whether one or more site visits will be required to ensure compliance with forestry regulations and to encourage compliance with voluntary forestry BMPs. DNRC provides information on the SMZ Law and BMPs to parties who apply for a HRA, as required by the BMP Notification Law.

The Forest Practices Program also provides information about the SMZ Law and BMPs by cosponsoring a number of educational workshops each year. The program conducts biennial audits to assess the application and effectiveness of BMPs.

Goal

Streamside Management Zones are protected during timber harvesting operations through compliance with law and application of Best Management Practices. Fire hazard created by logging slash and debris is abated in accordance with law.

Regulations and BMPs Protect Lives, Property, and Resources

A number of timber management activities can increase risks to life, property, and resources if not conducted properly. Logging slash can pose a wildfire hazard, and thus a risk to firefighter safety, lives, property, and natural resources. Some forest practices can cause soil erosion and impair water quality in the forest streams that are critical sources of high-quality water for Montanans. However, through proper forest practices it is possible to mitigate risks and protect soil and water resources. It was with these facts in mind that the Montana Legislature enacted the Slash Law, SMZ Law, and BMP Notification Law. By implementing these laws, the Forest Practices Program promotes proper forest practices, enabling timber harvests and other activities to go forward without detrimental effects on important resources.

Accomplishments
FY 2004

Informational packets mailed to landowners	1,223
On-site consultations	237
Post-harvest evaluations	6
Streamside Management Zone/Best Management Practices workshops conducted	7
Alternative practices issued	24
Streamside Management Zone warnings issued	11

The Fire Hazard Reduction ("Slash") Law

The Fire Hazard Reduction ("Slash") Law was enacted to reduce wildfire risks from untreated slash and debris. Any party planning a timber harvest or other commercial forest practices on private land must enter into a Hazard Reduction Agreement (HRA) with DNRC and post a bond which is refunded upon completion of proper cleanup of slash from the operation. HRA applicants also pay an administrative fee, part of which is used to cover the administrative costs of the program, and part of which is used to support forestry work by Montana State University Extension Forestry.

Untreated slash piles, such as the one shown in this photo, pose a wildfire hazard.

The HRA application requests information on the acreage to be harvested, slash treatment methods, site conditions such as proximity to structures and steepness of slope, whether harvest will take place near streams or other waterbodies, whether roads will be constructed, and also asks applicants whether they have previously received information on the SMZ Law and BMPs.

Burning is a common method of slash disposal.

DNRC reviews each HRA application to identify "high risk" logging operations, to help prioritize pre-harvest and post-harvest site visits. Sites with a low fire hazard risk and low risk of SMZ damage may not be inspected, whereas sites with a high fire hazard and/or risk of SMZ damage may receive multiple visits.

A finalized HRA specifies a timeline for completing slash disposal, and the applicant is issued a hazard reduction number, an important element in promoting compliance with the law. Mills will not accept logs or other materials unless they are presented with a hazard reduction number. The total quantity of wood to be harvested is specified in the HRA, and the hazard reduction number also provides a means to verify that the quantity of wood brought to mill is consistent with that specified in the HRA.

When DNRC determines that an applicant has properly disposed of slash as specified in the HRA, the applicant's bond money is released. If an applicant fails to comply with the conditions of the HRA, their bond may be forfeited and used by DNRC to properly treat the slash. Compliance rates are very high (99%).

Putting Slash to Good Use

Open burning is a common method for disposing of slash, but is limited by restrictions on when burning can take place, and has the disadvantage of producing smoke and adversely affecting air quality.

One innovative use for slash is as a fuel to heat Montana schools. The *Fuels for Schools* project is a cooperative effort of the USDA Forest Service, DNRC, and several Resource Conservation and Development Areas. Darby, Victor, and Phillipsburg each have a school with a heating system fueled by biomass from hazardous fuels treatment projects, and five other communities have completed feasibility studies for similar biomass heating systems.

Emissions from the modern high-technology boilers used in the biomass heating systems are far less than from open burning, and compare favorably with emissions from natural gas fueled systems. The schools make good use of a renewable resource and save thousands of dollars on heating costs each year.

Darby public school biomass heating plant.

The Streamside Management Zone Law

Montana's forest lands supply the state with many benefits, including acting as collectors, filters, and distributors of clean water on which plants, animals, and people depend. A Streamside Management Zone (SMZ) is a buffer strip of land adjacent to a stream that helps protect the stream and water quality. Recognition of the importance of SMZs led the Montana Legislature to enact the SMZ Law as a means to protect the integrity of SMZs. While the buffer strip is referred to generically as a SMZ, similar buffers protect other waterbodies such as lakes and wetlands and are also regulated under the law.

The SMZ Law recognizes six important functions of a SMZ:

- Filtering sediment to protect water quality
- Providing shade to regulate stream temperature
- Supporting diverse and productive aquatic and terrestrial riparian habitats
- Protecting the stream channel and banks
- Providing large, woody debris that helps maintain channel structure
- Promoting floodplain stability

The SMZ Law helps protect the streams and rivers that provide Montanans with scenic beauty and many beneficial uses, including recreation, drinking and irrigation water, and fish and wildlife habitat.

How the SMZ Law Protects Montana's Streams, Lakes, and Wetlands

The SMZ Law protects the integrity and functions of the SMZ by regulating the forest practices that can take place within the zone. The law prohibits seven forest practices in SMZs, including broadcast burning, operating wheeled or tracked vehicles except on established roads, clearcutting, construction of roads except when necessary to cross a stream or wetland, improper handling, storage, use, or disposal of hazardous or toxic substances, side-casting of road material into waterbodies, and deposit of slash in waterbodies.

The SMZ Law applies to forest practices conducted within a timber sale in a SMZ on private, state, or federal lands. When DNRC Forestry receives an application for a Hazard Reduction Agreement, agency staff review the application to determine whether work will take place in or near a SMZ, send a copy of the SMZ Law and guidebook to the applicant, and may conduct site visits. The guidebook contains detailed information to help applicants understand what areas are protected and what practices are prohibited. Applicants sometimes request an "alternative practice," an activity ordinarily prohibited in the SMZ. The Forestry Practices Program reviews the request and proposed mitigation measures, and conducts a site visit. If a request is granted, conditions are specified to protect SMZ functions.

SMZ inspections typically occur in conjunction with HRA inspections, or when possible violations of the law are reported. If violations of the SMZ Law occur, DNRC may seek an injunction to suspend operations, serve orders for site rehabilitation, or seek a court order to fine the violator. Compliance with the SMZ Law is 99%.

Best Management Practices Notification Law

■ Cooperative

Best Management Practices (BMPs) are practices that have been adopted to minimize non-point source water pollution from forest practices. While not required by regulation, the use of BMPs has been widely adopted by the forest products industry in cooperation with DNRC Forestry.

■ Cost Saving

The use of voluntary BMPs rather than exclusive reliance on regulations saves money for the forest industry and for Montana taxpayers. Regulations would be far more costly to implement and enforce, and there is no assurance that the level of resource protection would increase.

■ Effective

The Forestry Practices Program leads a biennial audit of the application and effectiveness of BMPs. When the first audit was conducted in 1990, 78% of practices met or exceeded BMP standards. The most recent audit in 2004 found that 97% of practices met or exceeded BMP standards.

How the Best Management Practices Notification Law Works

Forestry Best Management Practices have provided guidance as minimum water quality protection standards in Montana since the 1970's. In 1987, the U.S. Congress amended the Clean Water Act to address non-point sources of pollution, and directed all states to develop plans to address non-point sources of pollution. Revised BMPs were developed for Montana in response to this federal directive and concern by the Montana Legislature about the impacts of forest practices on Montana watersheds. Since that time, the forest practice BMPs have been periodically reviewed and revised, and DNRC Forestry oversees a biennial audit of the application and effectiveness of BMPs.

The BMP Notification Law requires DNRC Forestry to provide information on BMPs to applicants for Hazard Reduction Agreements. DNRC Forestry also encourages the use of BMPs by sponsoring several workshops on BMPs and the SMZ each year in conjunction with the Montana Logging Association.

DNRC's biennial audits of the BMPs also provide an opportunity for education and cooperation among diverse stakeholders. The audits are conducted by audit teams comprised of members from many backgrounds and interests. Team members become intimately familiar with how BMPs are applied on the ground. Landowners, agency professionals, loggers, and other are encouraged to attend audits to learn more about BMPs and their proper implementation.

Informational Resources About BMPs

Two publications with information about BMPs and the importance of riparian forests to wildlife are available from DNRC, and may be provided to HRA applicants as part of an information package. *Water Quality BMPs for Montana Forests* provides extensive information about BMPs and illustrates a variety of practices.

Examples of How BMPs Can Improve Forest Practices

BMP

Road Construction

Left: The road has been placed too close to the stream, leaving insufficient ground vegetation to keep sediment from entering the stream.

Right: Compacted slash is being installed adjacent to the road, and will help slow surface runoff and keep sediment from entering streams.

Stream Crossings

Left: This improperly placed culvert allows sediment to enter a stream.

Right: A properly placed culvert. The step pools below the culvert help improve passage for fish.

Timber Harvesting

Left: Poor planning results in the disturbance of a large area with skid trails.

Right: Selection of a harvest method that is appropriate for site conditions can help minimize disturbance.

Winter Logging

Left: Operating heavy equipment during winter thaws can cause soil compaction, rutting, and possible erosion.

Right: Creating snow berm breaks will allow for spring drainage without damaging the road surface.

The examples of BMPs given above as well as many of the photographs in this publication were used with the permission of Montana State University Extension Forestry, and were taken from *Water Quality BMPs For Montana Forests* published by MSU Extension Forestry.

Persons with disabilities who need an alternative, accessible format of this document should contact the Montana Department of Natural Resources and Conservation Forestry Division, 2705 Spurgin Road, Missoula, MT 59804-3199. Phone (406) 542-4300 or fax (406) 542-4217. 500 copies of this document were published at an estimated cost of $2.70 per copy. The total cost of $1,350 includes $1,350 for printing and $0 for distribution.